

We claim:

1. An extension apparatus for a vehicle tailgate, comprising:
  - a U-frame member, said member being slidably removable from an interior portion of said vehicle tailgate; and
  - a plurality of side braces adapted to lock said U-frame member in a plurality of operative positions.
2. The extension apparatus of Claim 1, wherein said U-frame member is comprised of:
  - a pair of arms; and
  - wherein said pair of arms each includes a recess adapted to accept one of said plurality of braces in a stored position.
3. The extension apparatus of Claim 1, wherein said U-frame member further comprises:
  - a step portion;
  - said plurality of operative positions including a step position wherein said step portion is below said vehicle tailgate.

4. The extension apparatus of Claim 1, wherein said plurality of operative positions includes an extension position wherein said U-frame member is substantially co-planar with said vehicle tailgate.
5. The extension apparatus of Claim 1, wherein said plurality of operative positions includes a back stop position wherein said step portion is above said vehicle tailgate.
6. The extension apparatus of Claim 1, wherein said plurality of side braces lock said U-frame member in said plurality of operative positions by linking between said U-frame and said vehicle tailgate.
7. The extension apparatus of Claim 1, wherein said U-frame member is a metal extrusion.
8. The extension apparatus of Claim 7, wherein said metal is aluminum.
9. The extension apparatus of Claim 3, wherein at least said step portion of said U-frame is hydroformed.

10. The extension apparatus of Claim 3, wherein said step portion includes a knurled surface to aid in traction.

11. The extension apparatus of Claim 3, wherein said step portion includes a padded or non-skid surface applied to said step portion to aid in traction.

12. The extension apparatus of Claim 2, further comprising:  
a pair of channels formed in said interior of said vehicle tailgate, said channels adapted to allow said pair of U-frame arms to slidingly enter and exit said interior of said tailgate.

13. The extension apparatus of Claim 12, wherein said channels are formed in a plastic reinforcing module of a hybrid tailgate with a metal skin over said plastic reinforcing module.

14. The extension apparatus of Claim 1, further comprising:  
a pair of hinge elements attached to said U-frame arms to allow said U-frame to rotate into said plurality of operative positions.

15. The extension apparatus of Claim 14, wherein said hinge elements are adapted to slide along said channels formed in said interior of said vehicle tailgate.

16. The extension apparatus of Claim 1, wherein each of said plurality of side braces includes at least one tailgate locking post adapted to be inserted into a latching mechanism on said tailgate.

17. The extension apparatus of Claim 16, wherein said braces are adapted to lock said U-frame in a plurality of operative positions.

18. The extension apparatus of Claim 1, further comprising:  
a cover plate adapted to be attached to said U-frame member.

19. The extension apparatus of Claim 18, wherein said cover plate is completely removable from said U-frame member and said vehicle tailgate.

20. The extension apparatus of Claim 18, wherein said cover plate is hingedly attached to vehicle tailgate and may be rotated and secured to said U-frame member when said U-frame member is in one of said plurality of operative positions.

21. The extension apparatus of Claim 14, further comprising:  
at least one detent to lock said plurality of hinge elements into a storage position.

22. The extension apparatus of Claim 15, further comprising:  
at least one stop to engage at least one hinge element to prevent  
removal of said U-frame from said tailgate.

23. A method for utilizing a tailgate extension apparatus  
comprising the steps of:  
opening a vehicle tailgate into a substantially horizontal position;  
extending a U-frame member from a storage position within said tailgate to a  
position outside of said tailgate; and  
locking said U-frame member into an operative position by means of a plurality of  
side braces.

24. The method of Claim 23, further comprising said step of:  
rotating said extended U-frame member into said operative position via a plurality  
of hinge elements before said locking step.

25. The method of Claim 24, wherein said operative position is a step position in  
which at least part of said U-frame member is brought substantially below said opened  
tailgate.

26. The method of Claim 24, wherein said operative position is an extension position in which said U-frame member is brought substantially planar with said opened tailgate.

27. The method of Claim 26, further comprising said step of: attaching a cover plate to said U-frame member such that said cover plate is substantially in a same plane as an upper surface of said opened tailgate.

28. The method of Claim 24, wherein said operative position is a back stop position in which said U-frame member is brought substantially perpendicular to said opened tailgate and above said tailgate.

29. The method of Claim 28, further comprising the step of: attaching a cover plate to said U-frame member such that said cover plate is on an inside face of said vertical U-frame member.

30. The method of Claim 23, wherein said braces directly connect said U-frame member to said vehicle tailgate.

31. The method of Claim 30, wherein said braces are connected to said vehicle tailgate by means of conventional tailgate latches.

32. The method of Claim 23, further comprising said steps of:  
after said extending step, pulling said plurality of braces out of a storage location  
in a recess in said U-frame.